Advanced Neutron Spectrometer

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Energetic neutron measurements remain a challenge for space science investigations and radiation monitoring for human exploration beyond LEO. We are investigating a new composite scintillator design that uses Li6 glass scintillator embedded in a PVT block. A comparison between Li6 and Boron 10 loaded scintillators are being studied to assess the advantages and shortcomings of these two techniques. We present the details of the new Li6 design and results from the comparison of the B10 and Li6 techniques during exposures in a mixed radiation field produced by high energy protons interacting in a target material.

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